"THE STABILIZING OF THE DOLLAR"

Professor Irving Fisher's plan of currency reform, which he has named "The Stabilizing of the Dollar," is an effort to adopt the Commodity Index as a standard of value and at the same time retain the gold reserve basis for currency.[1] The keystone of his plan is to maintain fairly constant the values in exchange of all commodities in terms of the dollar by varying the amount of gold in the dollar of the reserve. Whether or not we can believe that such an effect would necessarily result depends upon our acceptance of two current monetary theories; first, that the price level follows directly the variation in the number of units of currency in circulation; second, that the number of units of currency in circulation varies directly with the number of gold units in reserve. Assuming a fixed amount of gold in reserve, it is proposed to control the Index price, that is, the relation of the unit of currency to the unit of the compound commodity, by varying the number of units into which the gold reserve is divided. Such an effect can only be produced if the two quantitative reactions stated above actually work and if the causative sequence is as given.[2] This is then the gist of the matter. To test the correctness of this plan it is therefore necessary to examine the relations between prices, currency, and gold.

Normally, commodities and services represent the whole right to demand other commodities and services. Now bullion is such a commodity. But all other money and credit, composing the circulation, is merely the elastic neck of a figurative hourglass through which these exchanges take place. It is the expression of, but not the warrant for, demand. Such currency is a fictitious commodity without cost of production, of which the only utility is that all other commodities are translated into it before exchange.

[1] I use the word "currency" to cover coin, bullion, notes, and bank credit, in fact the whole medium of exchange. "Currency," on account of its intrinsic meaning, seems to me preferable to "money," which is also sometimes used in this sense.

[2] Cf. *infra*, pp. 203–5.

The institutions of mints and banking introduce into this normal law of exchange two abnormalities. Governments can possess themselves of unearned demand—that is, demand not arising out of commodities or services—by arbitrarily creating token money or credit. This can be done as well by issuing I.O.U. securities representing no property but the power to tax, as it can by the older method of floating paper money. Then again, private persons can avail themselves of purchasing power earned in the past but since used and converted into permanent property, by offering the comparatively new liquid security (evidence of ownership in permanent property) as collateral for credit issues. But with due allowance for these two exceptions it may be said that increase of currency cannot convert mere desire from ineffective demand into effective demand because those possessing the ineffective desire cannot possess themselves of the currency. Demand must make itself effective by the usual process of making something else than currency and exchanging that thing for currency.

If effective demand cannot normally be created by increasing currency, how is it possible to increase currency except where additional effective demand already exists? No one wants currency for itself. Men want neither additional loans nor large deposits when business is quiet. Currency is a utility which is hired when it is needed and not hired when it is not needed. When not needed, it remains dormant pending a potential union with effective demand. It is one of the advantages of the credit system that the circulation expands and contracts so rapidly according to the needs of business, whereas money was and is less responsive. Credit comes and goes in and out of existence very readily. When effective demand declines, an equivalent amount of credit is retired.

This conclusion coincides with two principles of currency that have been accepted for many years. The first is that no more sound currency can be forced into circulation than the needs of trade require. The needs of trade may bring into circulation unsound currency which will be accepted at full value if the supply of sound currency is not sufficient to meet the demand. But beyond this point any additional sound currency simply forces itself out of use through redundancy. In the case of credit,

redundancy cannot occur, for loans can be freely retired. Again, according to Gresham's law, the introduction of unsound currency gradually forces out of circulation the sound currency. If this inflation process is continued the circulation can absorb a nominal amount greatly in excess of the apparent saturation point. But this excessive unsound currency must have depreciated in value in approximately the same proportion as it exceeds the needs of trade. The apparent redundancy is made possible by loss of confidence and maintained by the lack of any means of retirement.

Additions to currency, then, can neither create effective demand, nor can they be made at all unless that demand already exists. The converse is also true. Demand cannot be curtailed by contracting currency, though if a shortage exists it may cause great inconvenience. What appears to be the lowering of prices by contracting currency is in reality lowering of prices through forced sales necessitated by the contraction of loans. It is not a diminution of buying power but a diminution of owning power and the development of a buyer's market which produces the result. If currency is insufficient in amount or quality, barter takes place, as is seen in Germany's international trade, and in Russia's internal trade today. If a group of commodities were to advance in price due to increased demand, it would be absurd to suppose that the sellers could not get the price because arbitrary limitations upon the volume of currency would not permit that extra amount of money value to exist.

The whole conception of the proponents of the quantitative theory of money, which pictures goods on one side of the equation and money on the other, is erroneous. In fact, goods and services are on both sides of all exchanges. We must admit the general equation that the number of units of the standard of value in active circulation times the velocity of their circulation equals the amount of commodities and services sold times their price level. But that does not prove the thesis that price levels follow the fluctuations in amount of currency more positively than it proves that price levels follow the fluctuations in quantity of goods, or that fluctuations in the amount of currency follow price levels. The formula recognizes four variables and merely states an obvious

relation. The thesis selects one as the causative factor. The tables put forth in support of the quantitative theory which show a correspondence between the variations of the commodity index and the circulation are evidence that our currency is elastic, that it is responsive to the needs of trade, and that it expands and contracts according to the changes in volume of transactions; that is, the price-mass-velocity of the exchange of commodities and services. This is the true Comptroller of the Currency.

It is admitted that the currency can be artificially deflated or inflated by the contraction or expansion of issues of money or credit based upon government loans or loans upon permanent property not for sale. In such cases, to be sure, a new and unearned demand suddenly enters a market which is usually open to earned demand only, and possesses itself of the means of payment. But it is the additional demand and not the increase in currency that puts up prices. And it is the new price level that holds the currency in circulation and not the new currency that maintains the price level.

In this country, after the outbreak of the war and before we ourselves entered it, the volume of currency increased in response to a general advance in prices. This increase was not a cause but an effect of the rise of prices. World-demand had skyrocketed our markets. But the expression of this demand was in the form of securities, in increased imports, and only finally and slightly in gold, the only international money. There was immense activity in business at higher prices which called for increase in the instrument of exchange. But it was not this increase which represented or presented the excess demand for our products. Currency expansion was a means of facilitating our internal preparatory exchanges and was a consequence, not a cause, of the final consumptive demand appearing in our abnormal exports.

I conclude that only through making effective unearned demand of governments and the previously spent demand of property-owners can arbitrary variations of currency occur which affect price levels; that, with these exceptions, the price level is determined by supply and demand of commodities and services *inter se;* that the advance or decline in value and price of one commodity

with respect to others increases or decreases effective demand and tends, therefore, to elevate or depress all other prices correspondingly; that the volume of currency normally follows the volume of transactions and cannot be varied independently of the need for it; and therefore that any system for controlling prices by arbitrarily increasing and decreasing the volume of currency would not produce the expected effect.

The second of the two processes by which the stabilizing of the dollar is supposed to operate is the direct control of the volume of currency by varying the units into which the gold reserve is divided. This supposition presupposes the acceptance of the popular idea of our redeemable and convertible currency. There are two conventions which still appear to have general acceptance. One is that our currency is redeemable in gold. The other is that the unit of our coinage is a gold dollar weighing 25.8 gr. and therefore that the dollar varies in value with the fluctuations in the value of gold, or conversely that the purchasing power of the dollar varies according to the amount of gold in it. Since these conventions are no longer much more than legal fictions except where international trade is concerned, and then only within limits, it is important to establish the real facts of our monetary system.

When gold was the principal medium of exchange, it was also the standard of value. At that time variations in the weight of coin or of the value of gold varied the value of the money. But at that time, since the coin was constantly in circulation, no system of varying its weight to stabilize its purchasing power could be applied without causing great confusion. Moreover, at that time the necessity was lacking. Gold coinage developed out of a general experience which indicated that gold was the most stable-valued commodity. With the exception of the extraordinary and unique effects of the discovery of America, its course was satisfactory for many centuries.

But we are no longer interested primarily in the question whether or not gold is a satisfactory standard of value, for it is no longer our actual standard. The volume of our transactions has long since grown beyond the point where the total gold in existence could finance it.

Theoretically, money and credit are redeemable—that is, they are interchangeable with gold and their value is thereby fixed in gold. But the condition of this assurance is that it shall be made use of rarely. It is a promise which, if its performance is required to any considerable extent, is found to be a pricked bubble. At this writing we hold gold to the amount of about 12 per cent of our currency. Gold flows with some freedom internationally, but not intra-nationally. This international flow only serves to maintain some degree of similarity between our price levels and those of other countries, and to tie gold in general to some extent to the values it has in countries still using it as a direct medium of exchange. But our currency is not convertible. This we always rediscover in each panic and in cases of unusual international flow. The primary value of a gold basis is as a limitation upon the issue of currency and not as a fixative for the value of currency. And yet, through this limitation, if not through ready interchangeability, it does prevent excessive inflation under normal conditions, and therefore inhibits the above-mentioned arbitrary changes in the value of the currency.

The currency dollar and the gold dollar are not then identical, since they are not in practice interchangeable on a large and free scale. Moreover, it is not the value of the dollar that is fixed in terms of gold, but the value of gold that is fixed in terms of the dollar. Credit currency has reversed the process of metallic currency.

Gold is fixed in price in terms of the dollar because it has but two markets. It goes either into the great hoards of the governments established by free coinage and the gold basis, or it goes into the arts. The Director of the Mint has estimated that for the period 1890–1910 about 25 per cent of the new gold went for industrial purposes. But even that does not establish the demand for the arts as a factor in establishing the price. For why should dealers bid up gold in the open market when they are free to withdraw from government hoards at a fixed arbitrary price? And why should miners sell to other buyers at a lower price when they can turn in their entire production to governments at this fixed price? Therefore, in reality the hoards constitute the only market

for gold. And there is but one bid because the governments have by fiat determined the permanent price of gold. In our case, it is $20.67 per ounce.

Left to itself the price of gold would tend to fluctuate according to the same laws as apply in the case of other commodities. It would tend to vary with supply and demand and to oscillate about its marginal cost of production. The variation in the cost of production parallels that of other metals such as silver. But the price of gold cannot follow cost because it is fixed by fiat. Therefore the only recourse to the producer for whom $20.67 per ounce does not cover cost is to close his mine. And he does so. This does not greatly affect the volume of extant gold because there is a great range in costs of production and to many producers the profit is great enough to withstand all moderate reductions in value. Then, too, the hoards are at present so large in proportion to the annual product that it would require many years before the effect of a curtailment of output would be felt.

The proof that the value of gold depends upon the value of dollars and not the reverse is that the major decline in the value of gold has come at a time when the largest customers for it are in great need of it, when its cost of production has greatly increased, its volume of production diminished, when all similar commodities have advanced in price; when, in fact, every contributing factor would induce a rise in price or approximate stability of value in terms of other commodities. The gold supply has not appreciably increased in the last five years, and yet its exchange value has depreciated over 50 per cent. This is only possible because the price for gold is pegged, and that not in terms of itself but of the actual currency dollar. It cannot follow its natural bent. The economic reaction of supply and demand is annulled, or at least hobbled.

If gold is not the standard of value, but is valued like all other commodities in terms of something else, what is the standard? The standard is the unit of the actual coinage, in our case the dollar. The dollar is a legal fiction. It is a unit in which prices are stated but it does not itself control prices. It represents purchasing power but is derived from selling power, which are, after

all, but two aspects of the same thing, the volume times the price of the commodities and services at the market.

The purchasing power of the dollar cannot be controlled, then, by varying the amount of gold which it is supposed to represent. That is merely to restate the fiat price of gold, not to change the natural price of the dollar. Nor would such a change directly vary the number of dollars outstanding, for the size of the gold reserve is only one of the factors affecting the volume of currency and its control is negative rather than positive.

Since in this country the volume of bank credits is from four to five times the volume of legal tender, it is plain that credit instruments compose the bulk of our currency. Legal tender responds incidentally and collaterally to the same influences which tend to increase and decrease credit. It is largely supplementary and its use is confined to small transactions. It is therefore comparatively unimportant. Moreover, since credit issues are much more responsive to demand and much more readily and quickly retired, they are by their very elasticity a more fruitful field for observation and study of the influences which determine the fluctuations in the volume of all currency.

There are four principal influences which seem to control the issuance of bank credit, and which, I believe, under normal conditions tend to vary the volume of it in the same direction and approximately to the same extent as the volume of commodities and services varies.

The first factor is the extent to which expected demand seems to exceed or fall short of present production, and consequently the extent to which latent credit is utilized. This either encourages increased production and requires greater carrying power than is available from the capital fund alone, or it discourages production and reduces the credits required. This factor is exaggerated in its effect by the aforementioned abnormality which permits the use, as security for credit, of evidences of ownership of fixed property—the reserve of the capital fund—of which the property itself is not in liquid form and is not intended for sale, though the evidences of ownership are. It is this great reserve basis for credit which enhances the possibility of speculative production and

permits a very extensive demand for goods and services which cannot be immediately liquidated by payment in other goods and services.

The second factor is a result of the first. With the entry into the market of this reserve demand which proposes to initiate additional production, higher prices for labor and materials result. Then follows an increase in actual volume of commodities in course of production. Both these processes increase the volume of total transactions in terms of dollars, and therefore require increased currency. The second factor is particularly to be observed in operation after the upward movement of prices and production has progressed for some time. The reverse of this process takes place when there is a shrinkage in total production in the average price level.

The third factor is the gold reserve. This in itself exercises purely negative control. The variation in the stock of gold affects the expansion and contraction of the currency like the application and release of a brake. It is not a causative influence but a limitation. The demand for currency is the motive power. That the gold reserve is not a causative influence is proved by the fact that it may vary greatly without altering the volume of currency and the volume of the currency may vary greatly without any change in the gold reserve.

The ratio of total gold in the United States to all other money and checkable deposits as of June 30 each recent year is given by the National Bank of Commerce in New York as follows:

	Gold Coin and Bullion (Millions)	Money (Not Gold) and Checkable Deposits (Millions)	Ratio
1909	1,640	9,111	18.0
1910	1,635	10,251	16.0
1911	1,753	10,422	16.8
1912	1,812	10,473	17.3
1913	1,866	10,373	18.0
1914	1,871	11,773	15.9
1915	1,973	11,538	17.1
1916	2,450	14,502	16.9
1917	3,019	17,554	17.2
1918	3,075	20,634	14.9
1919	3,112	25,470	12.2
1919 (Sept. 1)	2,944	25,804	11.4
1920	2,707	27,755 (est.)	9.8
1920 (Sept. 1)	2,688	26,970 (est.)	10.0

The total range of variation in this ratio is over 80 per cent of the lowest percentage. Twice in single years money and credit has increased over 15 per cent while gold remained practically stationary, and once gold increased 6 per cent while money and credit decreased 4 per cent. From 1909 to 1914, while gold increased 14 per cent, currency increased 29 per cent. From 1914 to 1920 (June 30) gold increased 44 per cent and currency increased 144 per cent. In the whole period, 1909 to 1920 (September 1), gold increased 64 per cent and currency 196 per cent.

The fourth factor is the interest rate. This is the rate of hire at which currency will be created subject to the limitations of the gold reserve and in response to the variations in demand expressed by the first two factors. Like all prices, it has a reaction upon demand as well as upon supply. Low rates encourage borrowing, but discourage lending. High rates encourage lending, but discourage borrowing. The rates depend somewhat, but not exclusively, upon how closely the volume of credit approaches the currently accepted maximum "safe" ratio to the gold reserve. Therefore it is to some extent but the means through which the gold reserve exercises its control.

If, therefore, the nominal dollar does not depend for its purchasing power upon the value of the gold dollar, and the number of nominal dollars outstanding does not vary approximately according to the number of gold dollars in reserve, it is not possible to vary the value of a dollar by manipulating the gold cover.

Since he proposes no strengthening of the connection between gold and dollars, all that could actually be accomplished through Professor Fisher's piece of machinery is already being accomplished by the present system of gold reserve—when it is maintained. The main defect in it is that it is not maintained. In the past five years currencies have increased in those countries where gold reserves have increased. But they have increased still more where gold reserves have decreased. Under stress of necessity the limitation is always disregarded. Nothing in Professor Fisher's plan would prevent a repetition of this procedure. It is true that contraction of gold reserves does have the effect under accepted customs of causing a shortage of currency and thus reducing prices by causing pressure to sell. But how easily these accepted

customs may be abrogated under necessity is shown by the experience of France where in an emergency of five years' duration gold was arbitrarily disestablished as even the limiting basis of reserve of currency. How futile this proves the scheme!

The volume of transactions necessarily increases gradually over long periods with the increase of civilization and productivity. But this increased need for currency does not necessarily have any relation—certainly no concordant one—with the increase in the world's stock of gold. The increase in the gold supply is to a large extent accidental, not progressive.

Should the volume of gold in existence fail to increase while the volume of commodities (and therefore of transactions) continued to increase in the same rapid ratio that it has in the last century, it would be necessary still further to separate the measure of currency from the measure of gold. As often as we have outgrown our gold supply in the past, we have invariably reduced the ratio of gold cover. Each time it has been effectively demonstrated that under the credit system gold is not the standard of value of currency, but vice versa. And each time it has been rendered less feasible to manipulate the amount or the value of currency through manipulation of the price of gold.

Under our present credit system there can be, as we have seen, independent and arbitrary variations in the volume of currency, which present a new and effective but unearned demand. And this demand certainly affects prices. These are interferences with the natural operation of demand for currency upon its supply. They should be eliminated. But they would not be eliminated by Professor Fisher's method.

The main peaks of the Commodity Index are found to have occurred during the Napoleonic, the Civil, and the Great wars. Wars disturb supply, but they also artificially inflate currency. In war, the governments—the people in the aggregate—have great and unusual requirements. They add these requirements to the current demand, for the people make every effort not to surrender their usual buying power. Under such conditions there is compulsory inflation of money, or credit, or both. If this is carried

so far as to break away from the gold basis and gold is sent in abnormal amounts to other countries, then the latter may also be affected because the principal brake upon currency issues is to that extent released. This is not a direct and necessary consequence, but a possibility. There is no reason to suppose that without the artificial inflation caused by government financing, the gold cover imported into this country in 1915 and 1916 would ever have been put to full use. It was primarily the loans upon Liberty Bonds that forced expansion up to the legal limits.

Avoid war and the consequent compulsory inflation of either money or credit. Avoid irresponsible and autocratic governments which can, even in normal times, assume an arbitrary right to purchase by means of issues of new paper or credit. Do these two things and you will overcome the major sudden fluctuations in the value of currency which are due to currency causes—that is, to demand which appears first as new currency.

Good government and peace are desired for other and more important reasons than the avoidance of inflation, so it is not likely that efforts toward currency reform will add much weight to the case. To attempt to stem the tide of war or despotism by adopting the "stabilized" dollar is, moreover, like trying to sweep back the waves with a broom.

The other arbitrary cause of price fluctuations which has been referred to occurs in times of peace. This defect in our credit system has, I believe, been largely overlooked. It can be remedied, but not by Professor Fisher's method.

Economically, the only sound basis for credit is commodities in process of production or distribution to the consumer. The present basis of almost all our currency is commodities and property. The correct basis is commodities only. While the evidences of ownership in fixed property may be quite liquid and therefore form a perfectly safe collateral for loans so far as the soundness of the banking system is concerned, their use as a basis for credit does permit inflation of credit. Through such credits, purchasing power may be created in excess of the actual new wealth that is for sale. Consequently by the diversion of large amounts of

currency from the purpose of exchange of fixed property, upon which basis it was issued, to the purchase of new commodities, prices on such commodities are naturally bid up. If credit were limited to issuance on the basis of commodities actually for sale, there could never be more effective demand than there is ready supply. Nevertheless, natural changes in price level due to causes within the commodities would not be interfered with. This no doubt is a restriction upon credit the advantage of which will be perceived in time. The matter is a public, not a private, concern. It is the issuance of the principal circulating medium, backed, protected, and regulated by the government for the people. The history of banking merely adds another instance of an invention and improvement, devised and provided by private initiative, supplanting the outworn facilities of the slow-moving government. Credit has supplanted money. Then credit must now be controlled like money.

By this means, casual increases in gold stock, either local or world-wide, would be prevented from releasing the brake upon credit, and its movement would only effect a direct demand upon commodities and no possible credit extension. Banks of issue could loan their self-created deposits only upon collateral which represented actual salable commodities as evidenced by trade acceptances, warehouse receipts, or bills of lading. Other institutions could accommodate the demand for loans upon other collateral without having the privilege of loaning more than their own capital.

There would then be assurance that all the right to demand in existence (the coin and bullion itself being a small matter and largely absorbed as reserves for credit issues) would be counterbalanced by the existence of commodities for sale. The latter being the sole basis and measure of credit would compel the contraction and expansion of currency to follow their own expansion and contraction with at least much greater accuracy.

Such credit, issued against goods in process of reaching the consumer, is as a matter of fact a form of "goods dollar." It is already in use to a large extent at the present time. If a satis-

factory method could be devised of providing redemption in goods, we would have a real redemption fund instead of a somewhat fictitious one. Then the world would be relieved of devoting its labor to finding, preparing, and storing a huge amount of one commodity, gold, of which the utility is so slight that only a small part would ever be demanded for other uses. However, since we cling to our conventions, and as gold is convenient as a store of value, even if it is not useful, we will probably continue to think of it as precious, to covet it, and to use it for reserves and international redemption for many generations to come, or until the ratio of gold to currency becomes gradually attenuated to the vanishing point.

To recapitulate: Prices are the result of demand and supply of commodities and services *inter se*, not of fluctuations in the volume of currency. The volume of currency tends to follow the volume of transactions except when it is arbitrarily inflated. Such interferences can be eliminated by preventing the arbitrary acts of governments and by discontinuing the use of evidences of ownership in fixed property as a basis for credit. The prevention of the financing of unearned demand through credit expansion would eliminate all independent variations in the volume of currency, and therefore all the effect which such variations appear to have upon prices.

In the second place, the volume of currency cannot be automatically varied by changing the size of the gold dollar, because the size of the gold reserve has only a limited and not a quantitative effect upon the circulation, and because the fiat price of gold has no relation to the natural price except a historical one. Therefore, I believe it is demonstrated that Professor Fisher's plan is constructed upon false premises and is unworkable.

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NOTE: Since this article was written, a very rapid fall in the Commodity Index has taken place. During the same period, from May to December, the total gold stock has steadily increased. These figures, appended

below, demonstrate more clearly than can any argument the lack of any direct, immediate, or accurate correspondence in their respective fluctuations.

	Commodity Index (Department of Labor)	Total Gold Stock (Thousands)
January	248	2,787,714
February	249	2,762,905
March	253	2,720,606
April	265	2,662,284
May	272	2,646,615
June	269	2,663,730
July	262	2,687,512
August	250	2,695,337
September	242	2,688,744
October	225	2,704,672
November	207	2,739,043
December	190 (est.)	2,761,338

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